

STRESS TEST—United States Steel is rapidly testing and perfecting metal alloys to be used in aircraft of the future. The metals must be put through many rigorous tests for both strength and durability. Some metals must be developed for aircraft designs having special requirements in weight.

U. S. Steel Probes Space Age Metals

With earth satellites now competing with meteors for flying room, man has moved a step closer to the conquest of outer space. Incomplete knowledge of conditions to be met in space travel will gradually be filled by successive ventures, until a successful manned space ship is finally built.

The role of steel in solving these and related problems are among the projects being studied at United States Steel's Research Center in Monroeville, Pa.

The increasing part that steel will play in outer space was demonstrated when USS COR-TEN steel was used in the nose cones and tail fins of the Jupiter C rocket which placed this country's first satellite into orbit. The nose cone of the satellite itself is made of Type 430 stainless steel.

No one yet knows exactly what combinations of properties the ultimate steels for space craft must possess. Present and continuing studies at the Research Center to develop and control individual properties will provide the bases for developing steels having suitable combinations of properties when the requirements are known.

Some of the answers will be based on knowledge that has been gained in the development of steels for present guided missiles and manned aircraft that travel at supersonic speeds. As speeds have increased and improved power plants have been

(controlled heating and cooling cycles) to develop their best properties, and these treatments must be determined by carefully planned and controlled experiments.

Fast successes in meeting designers' needs for new and improved steels to meet more and more severe requirements in the fields of supersonic guided missiles and aircraft give assurance that the needs of the space-ship builders also will be met through research.

Friction between the outer skin and the atmosphere causes the skin of supersonic craft to heat up in flight. The higher the speed, the higher the temperature rises. Special steels will be required for the skin and some structural members of such aircraft and missiles. These special steels must remain strong at temperatures over 1,000 degrees Fahrenheit which will be encountered at air speeds above 2,800 miles per hour—over four times the speed of sound. No common present-day skin metal other than steel can be used successfully over about 700 degrees Fahrenheit, which is attained at speeds of around 2,000 miles per hour or about three times the speed of sound.

Scientists and technologists at the USS Research Center are engaged in a long-range program devoted to development of special types of steels for the following components of manned aircraft and guided missiles: 1. Skin and structural members; 2. Fasteners such as bolts, nuts and rivets; 3. Landing gears; 4. Bearings for operation at high temperatures; 5. Power plants.

Research follows three general lines. First, the kinds and quantities of alloying elements must be established to determine the composition of a steel to withstand the expected service conditions that may involve heat, cold, vibration, chemical attack, shock or other destructive influences. Secondly, the manner of shaping the steel into forms that will meet the designers' needs may involve special forging or rolling techniques, or even the relatively new process of hot extrusion. Lastly, some steels require special heat treatments

Plastics Make Living Easier

Union Carbide Chemical's Torrance plant, a division of Union Carbide Corporation, has an active part in making life easier for all of us.

Your home of the future may be dramatically different. It may not look different, but it will be dramatically easier to build, easier to maintain, and easier to keep clean. If your taste in architecture runs to the modern, you can have a home that looks different, too. Either way, you will have a house that is more fun to live in.

The secret of the coming revolution in home building, according to many experts, is modern materials such as those made possible by Union Carbide research. The people of Torrance will have a part in these changes, too. Carbide's Torrance plant is one of more than eight of the company's plants producing a wide variety of types of plastics.

New plastics and metals will replace or supplement glass and wood and other additional materials. Many experts believe that these new things will make it possible to apply mass production methods to home building on a wide scale. The result? More house for your money and a better built house to boot.

Plastics provide many possibilities. Famous architect George Cooper Rudolph was asked by Union Carbide to turn loose his imagination on ways to use plastics in home building and came up with the striking design shown here.

Plastics are not the only Union Carbide products that promise to revolutionize home building. Many plasticizers and resins used in making plastics and chemicals used to treat lumber for proper aging and resistance to rot and termites are products of Union Carbide Chemicals Company.

Stainless steel, made possible by ferrochrome from Electro Metallurgical Company, a sister company to the Torrance plant, already has found many household uses, and many more will come. In Rudolph's design, for instance, the thin, strong uprights supporting the roof might well be of stainless steel.

Girls Train for Vacation Trip

Twelve Senior Girl Scouts under the supervision of Mrs. Beres Ford, Saturday, held open house at El Nido Park, where they were given an outdoor training course from 12 to 3:30 p. m.

The girls are planning a vacation trip to the Sequoias, leaving Torrance June 22. The training course was given to prepare them for the outdoor life they will enjoy on their summer trip.

Girls in the troop are Jean Warner, Leora Kohler, Sandy Ernst, Donna Rapoport, Judy Arzoian, Sally Robinson, Susan Dumais, Susy Bluchel, Janice Hoffman, Charlene Garrison, Karen Kennedy, and Sandra Stotts.

Do not drive immediately after taking medicine, the All-state Safety Crusade cautions. Medicinal drugs often can pro-

Southwest Savings Loan Keeps A Spirit of Neighborly Warmth

Four years ago Southwest Savings and Loan was introduced to Torrance just a short block from its present location, 1603 Cravens. The objective set forth by the association was a dedicated plan to make available a savings and loan Torrance could call its own.

Since its first moment of operation, Southwest has consistently maintained a spirit of neighborly warmth to everyone. The friendly interest Southwest displays stems from the fact that all its personnel live in the area and are an integral part of the same community life as the people they serve.

Last year civic leaders and Torrance residents pointed with pride to the new and ultra-modern Southwest Savings building as a tangible example of Torrance's record-breaking growth. Fred E. Edwards, president,

gratefully acknowledged the loyal public support that made the move possible in so short a time. Because facilities were greatly expanded, Southwest was able to increase its departmental services to include insured savings, home loans, travelers checks, the cashing and selling of government bonds, money orders, complete escrow transactions, a collection department on trust deeds and a safe deposit section.

Southwest's Monthly Amortization Plan renders its customers the most complete and convenient terms available on individual residents either on new construction or refinancing in consolidation of first and second trust deeds.

But all of the activities are

not measured in dollars alone, in developing good citizenship, also. Under the guidance of John A. Tweedy, vice president in charge of Southwest's Torrance office, is the association-sponsored Little League Ball Club called The Braves.

As permanent testimony to Mr. Tweedy's qualifications is a trophy presented to him in 1957 from parents of boys forming the Yankee Team in the Torrance Little League for his "unlimited patience and understanding in teaching future stars."

Prior to his affiliation with Southwest Savings, Tweedy's banking experience numbered 27 years, five of which were as assistant manager in the Torrance branch of Bank of America. Though born in Canada, he was raised in Idaho and Washington state. Mr. and Mrs. Tweedy, with their son John Alden Jr., 11, and Michael Jay, 9, live at 1325 Arlington in Torrance.

Educator Speaks at PTA Program

"Increasing the Community's Awareness" was the theme of the April meeting of the Flavian PTA. Dr. Hunsaker of the Southwest School Districts cooperative special education program, was honored guest.

With the aid of color films, he explained the cooperative program being carried on between seven school districts: Centinela Valley, Hawthorne, Inglewood, Lawndale, Lennox, Torrance and Wiseburn for exceptional children.

During the business meeting presided over by Mrs. J. Kenneth Edwins, president, Brownie Troop 219, Mrs. James Koois, leader, and Brownie Troop 2127, Mrs. Charles R. Peterson, leader, were presented, and the association agreed to act as sponsors for these two units.

Reports Convention Mrs. Edwins gave a report on the PTA convention in Long Beach, to which 15 Flavian members were present. Ten Flavian Mother Singers appeared with the District Mother Singers during the afternoon session.

Special social hour following the April board meeting was in honor of the room mothers. Thank them for their contributions and help during the year. George Russell, safety chairman and faculty member, reported on the bike parade, which was the highlight of the bike safety program conducted in March. Several awards were given and he thanked all those parents, particularly who had been cooperative in helping the boys and girls bring their bikes to the requested standard of safety. The whole program was so successful that it will be continued on an annual basis.

Another Saturday comedy movie was held on April 28. Mrs. John Black, ways and means chairman, reported. Donations from this and the previous movie will go toward a fund for the purchase of stage screens for the school. Coffee and doughnuts were served in the home economics room following the meeting. The hostesses were fifth and sixth grade mothers.

Motorist should never drive their cars unless car windows are clean and visibility assured, the Automobile Club of Southern California says. For cleaning purposes, keep a small window scraper and cloth in the glove compartment of your car.



RESEARCH PRODUCT—Stainless steel already has found many uses in American homes and more are being developed all the time. In this work-saving kitchen, stainless steel, made possible by Electromet ferrochrome, is used for counter and stove top, hood and oven door. Ferrochrome is made at Electro Metallurgical Company, a sister company to Union Carbide in Torrance.



MAN LOOKING FOR A LIGHT

Time was, when a fellow needed a light he had to wait around under a thunderstorm, hoping lightning would start a forest fire. It was hard work—many a man returned to his cave with nothing to show for it but a wet leopardskin.

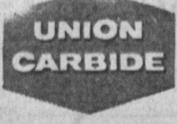
One stormy day a Neanderthal with a head cold stayed in his cave while the others were out fire-watching. He got to fiddling with a couple of pieces of dry wood, and noticed that when he rubbed them together they got warm... and warmer... and HOT. Something flicked in his cranium, and he began to rub furiously. A loop of smoke began curling up from the

wood, and then a red glow appeared. In a few minutes, he had a cheerful fire going.

They made him Chief, of course. Ever since, men who've thought up shortcuts—better ways, and better things—have been leaders. That's why CARBIDE spends so much time and money on research and development... to maintain our leadership in the chemicals industry.

In CARBIDE's labs hundreds of chemists, physicists, engineers, and technicians work to create the products that will make your life easier. Research has brought us a long way from the caveman. Research will take us a lot further.

UNION CARBIDE CHEMICALS COMPANY
Division of Union Carbide Corporation
HAWTHORNE and DEL AMO
TORRANCE, CALIFORNIA



FRESH MILK AND DAIRY PRODUCTS

SAVE Open 7 Days a Week
7:30 A.M. to 8:30 P.M.

VERMONT DAIRY FARMS

22400 S. VERMONT BETWEEN CARSON & SEPULVEDA
FAirfax 8-4891